#### VERENA GASSNER - MARIA TRAPICHLER

# **Fabrics of Paestum**

## **Introductory Note**

The classification of fabrics is based upon the macroscopic analysis of all diagnostic fragments of the material of studied contexts of the Austrian excavations. These comprise a context of the Early Classical period in the Lower town of Velia, an area in the Eastern town of Velia and in particular contexts from the excavation of the fortifications in the Lower town.

The provenance of the established fabrics has been confirmed by archaeometric analysis (thin section and heavy mineral analysis) conducted by Roman Sauer, who compared the pottery samples with local raw materials.

#### **Glazed Wares**

The basis for the established fabrics are samples from contexts of the distribution area (Velia), supplemented by some samples from Paestum, Foce del Sele.<sup>3</sup>

The microscopic analysis led to the distinction of eight fabrics (PAE-G-1 to PAE-G-8), which are based upon two petrographical-mineralogical types (Sauer RVG 07 with five variants, RVG 08).

#### **DESCRIPTION OF OBSERVED FABRICS**

All observed fabrics show a reddish yellow to pink and gray color, and a carbonatic matrix with a varying degree of clearly distinguishable carbonate-pseudomorphoses. The differences between the individual fabrics are probably due to different firing conditions. PAE-G-1 to PAE-G-3 show a reddish yellow matrix and contain only a limited degree of carbonate-pseudomorphoses. They are arranged from finer to coarser grained fabrics.

**PAE-G-1** (M 2/36, previously published as G 6<sup>4</sup>) shows a fine-grained and dense reddish yellow matrix, the structure of the fresh break being smooth. The calcareous matrix contains only a few carbonate- pseudomorphoses, some prominent black and some red iron-oxide concretions.

**PAE-G-2** (M 2/112) is also characterized by a very fine grained (hard fired and dense) matrix, its color shades from reddish yellow to gray. It may contain a few white quartz and black and red particles as well as occasionally visible carbonate-pseudomorphoses.

<sup>&</sup>lt;sup>1</sup> Mud-brick houses beneath the Roman Insula II: Gassner 2003. The amphora repertoire from the large foundation trench of the Roman building has been studied in the unpublished thesis of H. Liko (Liko 1997). The finds from a trench in front of the Insula II have been examined in the unpublished thesis of M. Trapichler, see preliminarily Trapichler 2003b.

<sup>&</sup>lt;sup>2</sup> Fine wares and coarse wares of these sites have been studied by M. Trapichler in her unpublished dissertation, amphorae by V. Gassner. For the present see Gassner 2006; Gassner and Trapichler 2010; Gassner et al. (in preparation).

<sup>&</sup>lt;sup>3</sup> Special thanks go to Guiliana Tocco Sciarelli of the Soprintendenza di Salerno, Dr. Marina Cipriani of the Archaeological Park in Paestum and Professor Giovanna Greco of the University Federico II di Napoli, who admitted and supported the taking of samples from the material of the excavations at Foce del Sele, Paestum.

<sup>&</sup>lt;sup>4</sup> Gassner 2003, 39–40. 346.

**PAE-G-3** (M 28/9) The matrix is reddish yellow and coarser grained than the former fabrics, the fresh break showing a granular appearance. Besides a few quartz particles and some black and red iron-concretions, only a few carbonate-pseudomorphoses are visible.

The matrix of PAE-G-4 to PAE-G-6 is riddled with carbonate-pseudomorphoses:

**PAE-G-4** (M 2/127) is characterized by a very fine-grained matrix, riddled with very small carbonate pseudomorphoses, often only visible as tiny white spots. The color shades range from light red or pink to gray. It only occasionally contains very small reddish and black particles and some mica.

**PAE-G-5** (M 2/16, previously published as G 1)<sup>5</sup> is yellowish red to gray, the matrix being coarser-grained than PAE-G-4, the carbonate pseudomorphoses larger and clearly visible.

**PAE-G-6** (M 2/137) seems the coarser grained variant of PAE-G-5 and contains a larger degree of coarser carbonate-pseudomorphoses.

One further fabric, **PAE-G-7** (M 2/25, previously published as G 3)<sup>6</sup>, was established based upon the mineralogic petrographical Type RVG 08. It is characterized by a brownish gray, granular matrix which is riddled with carbonate-pseuomorphoses.

**PAE-G-8** shows a reddish yellow granular matrix, clear quartz particles and rusty brown iron oxide-concretion, and prominent gray (clay) particles, while in contrast to the other fabrics, calcareous inclusions are hardly visible.

Chronology: PAE-G-1 and PAE-G-5 occur at Velia from the late Archaic to the Classical period; PAE-G-7 seems to be restricted to Late Archaic and Early Classical periods. PAE-G-2 and PAE-G-8 are attested in contexts of the second half of the fifth century B.C.E. at Velia, PAE-G-4 in contexts of the fourth century B.C.E., and PAE-G-3 and PAE-G-6 are attested in Early Hellenistic contexts.

Observed shapes and functions: Initially similar to Attic prototypes, in the fifth century B.C.E. some shapes develop specific regional forms (Gassner 2003; Trapichler 2003a; Trapichler 2003b).

### **Coarse Wares**

Three Fabrics were established on the basis of samples in the distribution area (Velia), complemented by samples from Paestum. <sup>10</sup> The spectrum of fabrics presented is incomplete due to the fact that black glaze was not as frequent among the finds in the contexts of Velia. The established fabrics are based upon the petrographical-mineralogical types RPGK 1 and 2 (Paestum).

Gassner 2003; Trapichler 2003a; Trapichler 2003b.

<sup>&</sup>lt;sup>5</sup> Gassner 2003, 39. 346.

<sup>&</sup>lt;sup>6</sup> Gassner 2003, 39. 346.

<sup>8</sup> Gassner and Trapichler 2010; Trapichler (forthcoming).

Gassner and Trapichler 2010; Trapichler (forthcoming).

<sup>&</sup>lt;sup>10</sup> Special thanks go to Giuliana Tocco Sciarelli of the Soprintendenza di Salerno, Dr. Marina Cipriani of the Archaeological Park in Paestum and Professor Giovanna Greco of the University Federico II di Napoli who admitted and supported the taking of samples from the material of the excavations at Foce del Sele.

# **DESCRIPTION OF OBSERVED FABRICS**

- **PAE-C-1** (previously published as GK 6)<sup>11</sup> shows a light red calcareous matrix, in which few carbonate-pseudomorphoses are distinguishable, some quartz particles and white mica, and prominent rust-colored and dark gray-black iron oxide-concretions.
- **PAE-C-2** (previously published as F 2)<sup>12</sup> differs from PAE-C-1 only by the presence of very prominent, and to an extent very large, black iron oxide-concretions.
- **PAE-C-3** ( previously published as GK 7)<sup>13</sup> is a light brown granular fabric riddled with carbonate pseudomorphoses.

(M. T.)

# **Transport Amphorae**

#### **FABRICS**

The fabrics of amphorae produced at Poseidonia consist of a hard red to brown matrix that is characterized by a well visible content of carbonate and a varying number of carbonate pseudomorphoses. They always contain ill-sorted inclusions of white, gray and colorless quartz as well as a discrete quantity of mica that is poorly visible on the images. Though the fabrics of Poseidonia and Velia seem rather similar at first glance, they normally can be distinguished clearly by the presence of carbonate in the fabrics of Poseidonia.

On basis of the visual examination of the amphorae we have been able to distinguish six fabrics (PAE-A-1 to 6).

- **PAE-A-1** This fabric is characterized by a rather fine grained matrix and the frequent appearance of clearly recognizable carbonate and carbonate-pseudomorphoses. The fabric has been observed for Western Greek amphorae with Gassner's rim 3<sup>14</sup> and it continued to be used at least until the beginning of the second century B.C.E.<sup>15</sup>
- **PAE-A-2** This fabric is distinguished from PAE-A-1 by the poorly sorted distribution of temper, single carbonate-pseudomorphoses are large and the black inclusions more frequent. The chronological distribution corresponds to that of PAE-A-1.<sup>16</sup>
- **PAE-A-3** In this fabric the carbonate-pseudomorphoses are less frequent than in PAE-A-1. The chronological distribution corresponds to that of PAE-A-1 and PAE-A-2.<sup>17</sup>
- **PAE-A-4** The fabric is very close to PAE-A-3, but the color of the matrix is yellowish brown instead of red. The fabric is not so frequent. At the present state of research its first occurrence has been documented for MGS II amphorae with Gassner's rim 7, becoming used more frequently in the Hellenistic period.<sup>18</sup>

<sup>16</sup> For the first samples see Gassner 2003, IIa.205–7, pl. 24.

<sup>&</sup>lt;sup>11</sup> Gassner 2003, 73–4, 348 color pl. 3.

<sup>&</sup>lt;sup>12</sup> Gassner 2003, 73–4, 351 color pl. 4.

<sup>&</sup>lt;sup>13</sup> Gassner 2003, 73–4, 351 color pl. 4.

<sup>&</sup>lt;sup>14</sup> Gassner 2003, IIa.213-4, pl. 25.

<sup>&</sup>lt;sup>15</sup> Gassner (in preparation).

<sup>&</sup>lt;sup>17</sup> For the first samples see Gassner 2003, IIa.218–9, pl. 25.

<sup>&</sup>lt;sup>18</sup> All samples come from the excavations of the fortifications at the Lower Town of Velia, see Gassner et al. (in preparation).

- **PAE-A-5** The fabric is distinguished by larger and more irregularly distributed particles of temper, in particular large black/dark gray inclusions. The chronological distribution corresponds to that of PAE-A-4.
- **PAE-A-6** The sample is strongly overfired, but carbonate-pseudomorphoses are well visible. The fabric is a particular case and infrequent.

(V. G.)

# **Ceramic Building Materials**

The three distinghuished fabrics are based upon one petrographical-mineralogical type (RVZ 10, RPZ 1 and 1a), the examined samples stem from Paestum, Foce del Sele (M 24/1-5) and the distribution area (Velia, M 8).

#### **DESCRIPTION OF OBSERVED FABRICS**

**PAE-CBM-1** is a hard burnt fabric and is characterized by a red matrix, in which a few calcareous particles and pseudomorphoses carbonate-pseudomorphoses are distinguishable, some quartz particles and white mica, and prominent rust-colored and dark gray-black iron oxide-concretions.

**PAE-CBM-2** has a pink calcareous matrix, its better sorted temper contains in addition to quartz and dark gray and rusty brown iron oxide-concretions, characteristic white brown rimmed carbonatic particles.

The matrix of **PAE-CBM-3** is pink to dark red and shows characteristic yellowish white veins, it contains reddish brown inclusions as well as some black and light gray particles.

Shapes: Roof tiles

*Chronology*: Classical to Hellenistical periods (unpublished contexts of the Hellenistic theater in Velia). <sup>19</sup>

(M. T.)

## References

- Gassner V. 2003. Materielle Kultur und kulturelle Identität in Elea in spätarchaisch-frühklassischer Zeit. Untersuchungen zur Gefäß- und Baukeramik aus der Unterstadt (Grabungen 1987–1994). Archäologische Forschungen 8 = Velia-Studien 2, Wien: Verlag Akademie der Wissenschaften.
- Gassner V. 2006. "Velia. La cultura materiale in Velia". Atti del 45 Convegno di Studi sulla Magna Grecia, Taranto, 21–25 settembre 2005, edited by A. Stazio, 471–504. Naples: Istituto per la Storia e L'Archeologia della Magna Grecia Taranto.
- Gassner V. in preparation. "Die Transportamphoren". In Gassner V., A. Sokolicek, and M. Trapichler (in preparation). Die Stadtmauern von Velia. Die Befestigung in der Unterstadt und der Mauerzug B (Grabungen 1997-2001). Velia-Studien IV. Vienna.
- Gassner V., and M. Trapichler. 2010. "La ceramica di Velia nel IV e III sec. a.C.". In *Grecs et indigènes de la Catalogne à la mer Noir. Actes des Rencontres du Programme Européen Ramses 2 (2006–2008)*, Naples 2007, edited by H. Treziny, 159–66. Bibliothèque d'Archéologie Méditerranéenne et Africaines 3, Paris: Édition Errance.
- Gassner V., A. Sokolicek, and M. Trapichler (in preparation). *Die Stadtmauern von Velia. Die Befestigung in der Unterstadt und der Mauerzug B (Grabungen 1997-2001)*. Velia-Studien IV. Vienna.

 $<sup>^{19}\,</sup>$  For the Austrian Excavations of the theatre at Velia see preliminary Krinzinger 2003; Krinzinger 2006.

- Krinzinger F. 2003. "Il teatro di Velia". In Elea Velia, Le Nuove Ricerche, Atti del Convegno di studi, Napoli, 14 dicembre 2001, edited by G. Greco, 21–28. Quaderni del Centro Studi Magna Grecia I. Naples: Naus.
- Krinzinger F. 2006. "Velia. Architettura e urbanistica in Velia". Atti del 45 Convegno di Studi sulla Magna Grecia, Taranto, 21–25 settembre 2005, edited by A. Stazio, 157–91. Naples: Istituto per la Storia e L'Archeologia della Magna Grecia Taranto.
- Liko H. 1997. Studien zu Amphoren aus Velia (4. 1. Jh. v. Chr.). Unpublished thesis Vienna University.
- Trapichler M.E. 2003a. "Glanztonware klassischer Zeit aus der Unterstadt von Elea Form und Produktion". In: Akten des 9. Österreichischen Archäologentages Salzburg, 6. –8. Dezember 2001, edited by B. Asamer, and W. Wohlmayer, 215–20. Wien:Phoibos.
- Trapichler M. 2003b. "Ceramica a vernice nera da Elea. Produzione locale ed importazioni". In Elea Velia, Le Nuove Ricerche, Atti del Convegno di studi, Napoli, 14 dicembre 2001, edited by G. Greco, 199–210. Quaderni del Centro Studi Magna Grecia I. Naples: Naus.

This article should be cited as: V. Gassner & M. Trapichler, "Fabrics of Paestum". In FACEM (version 06/06/2011) (http://www.facem.at/project-papers.php)